

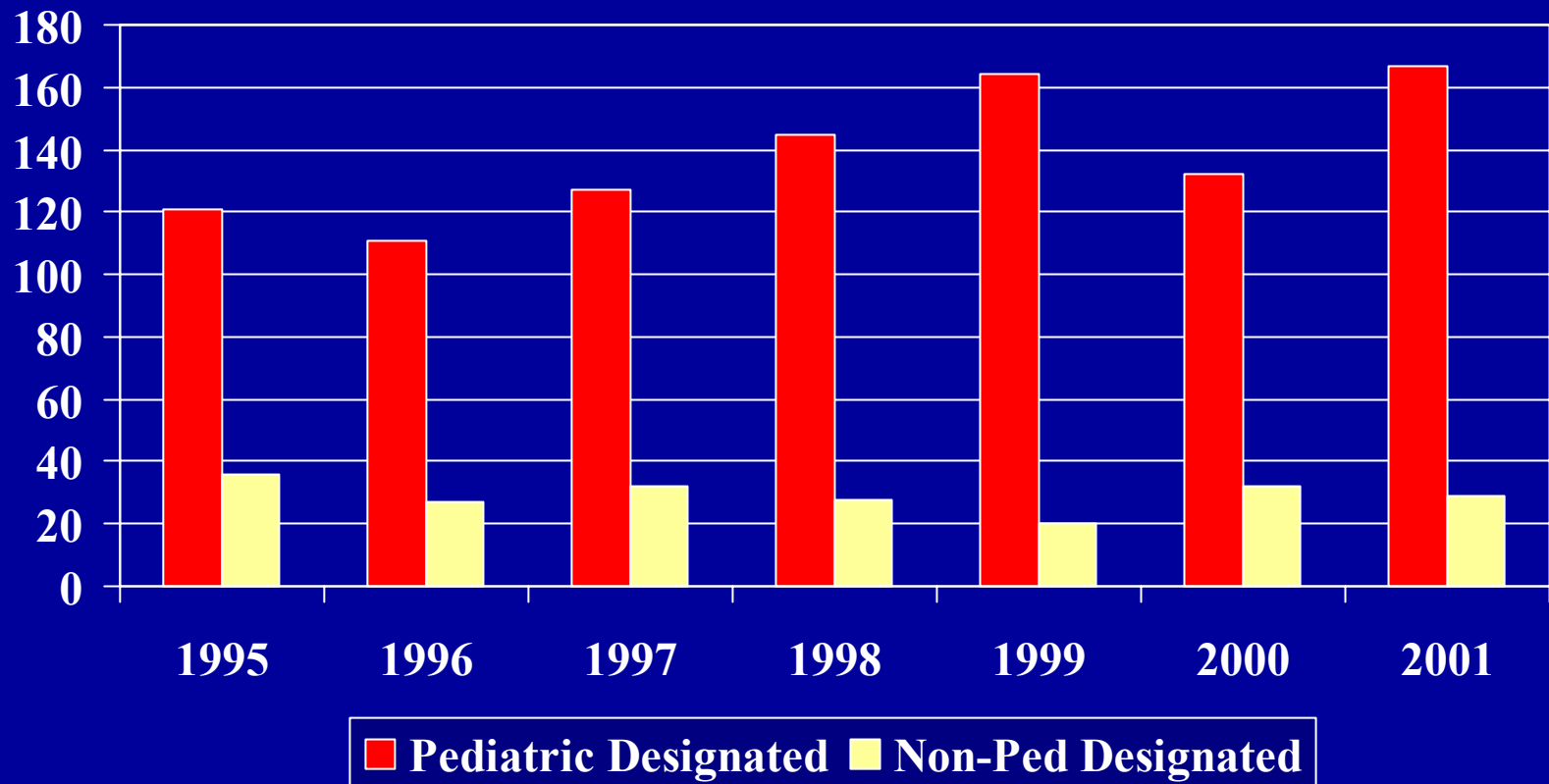
Pediatric Trauma

A focus on spleen and brain injuries

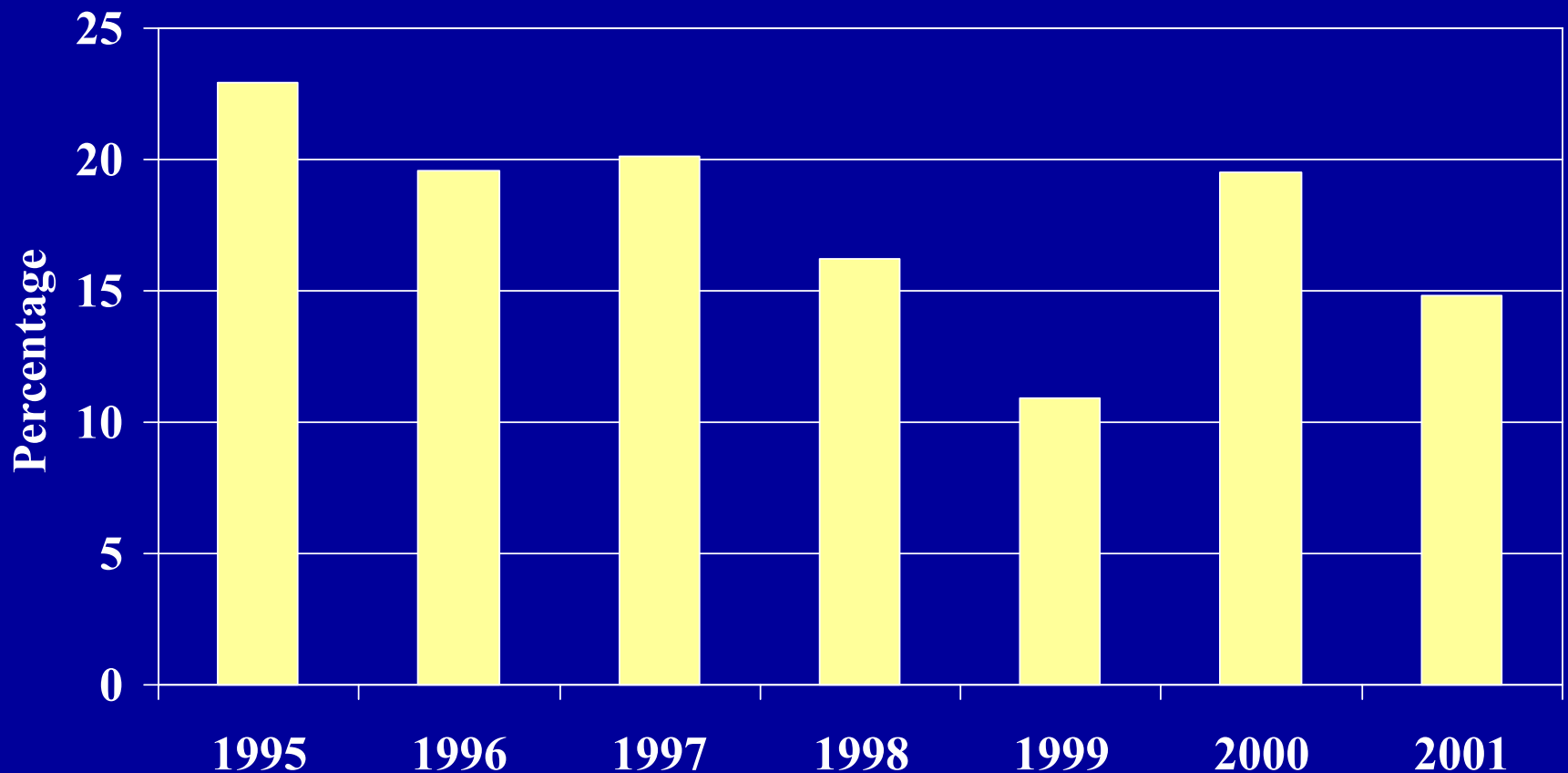
September 2002

Pediatric Major Trauma Admissions by Designation

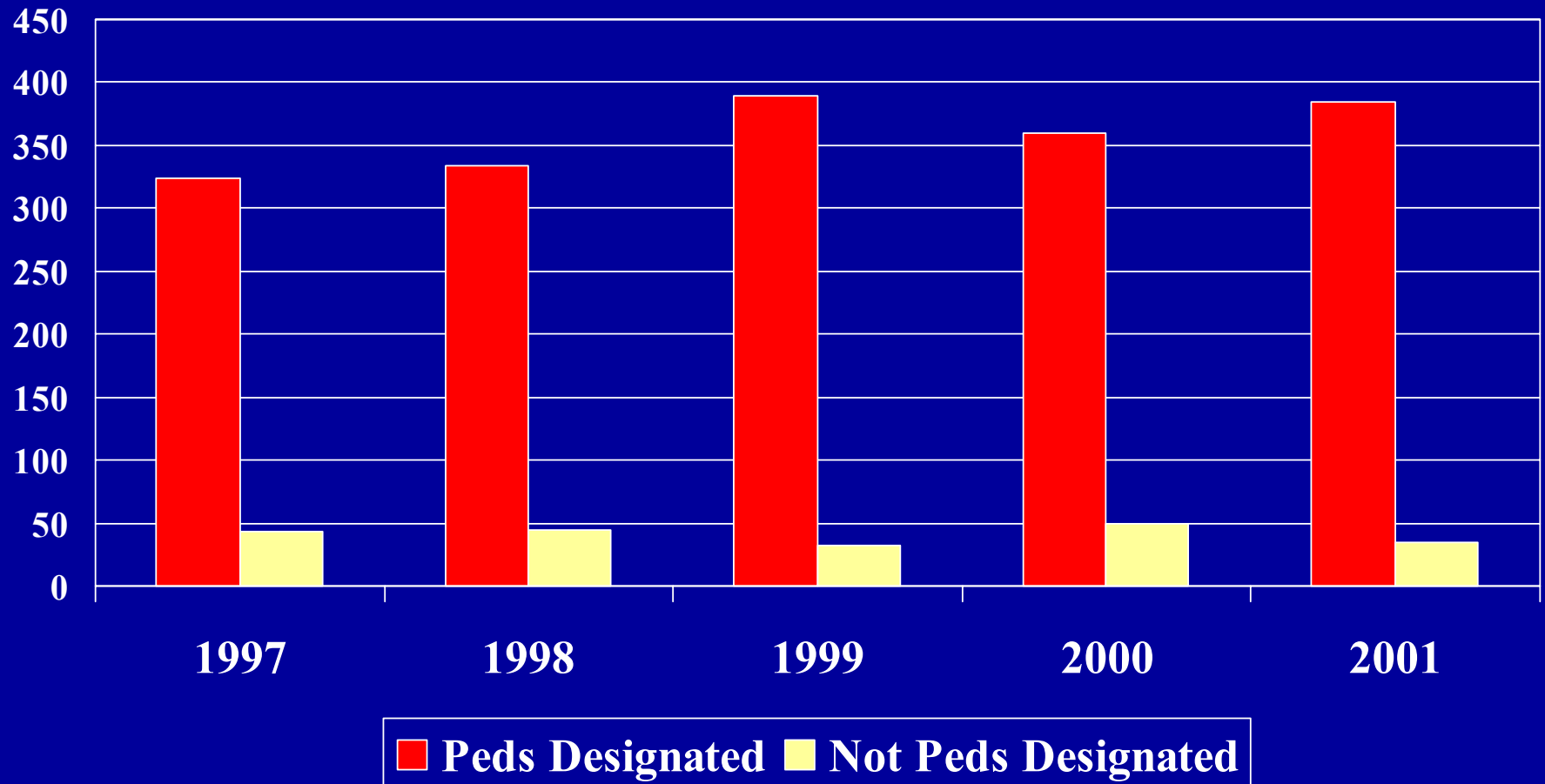
(DOH Criteria, ISS \geq 16, Admitted Patients Only)



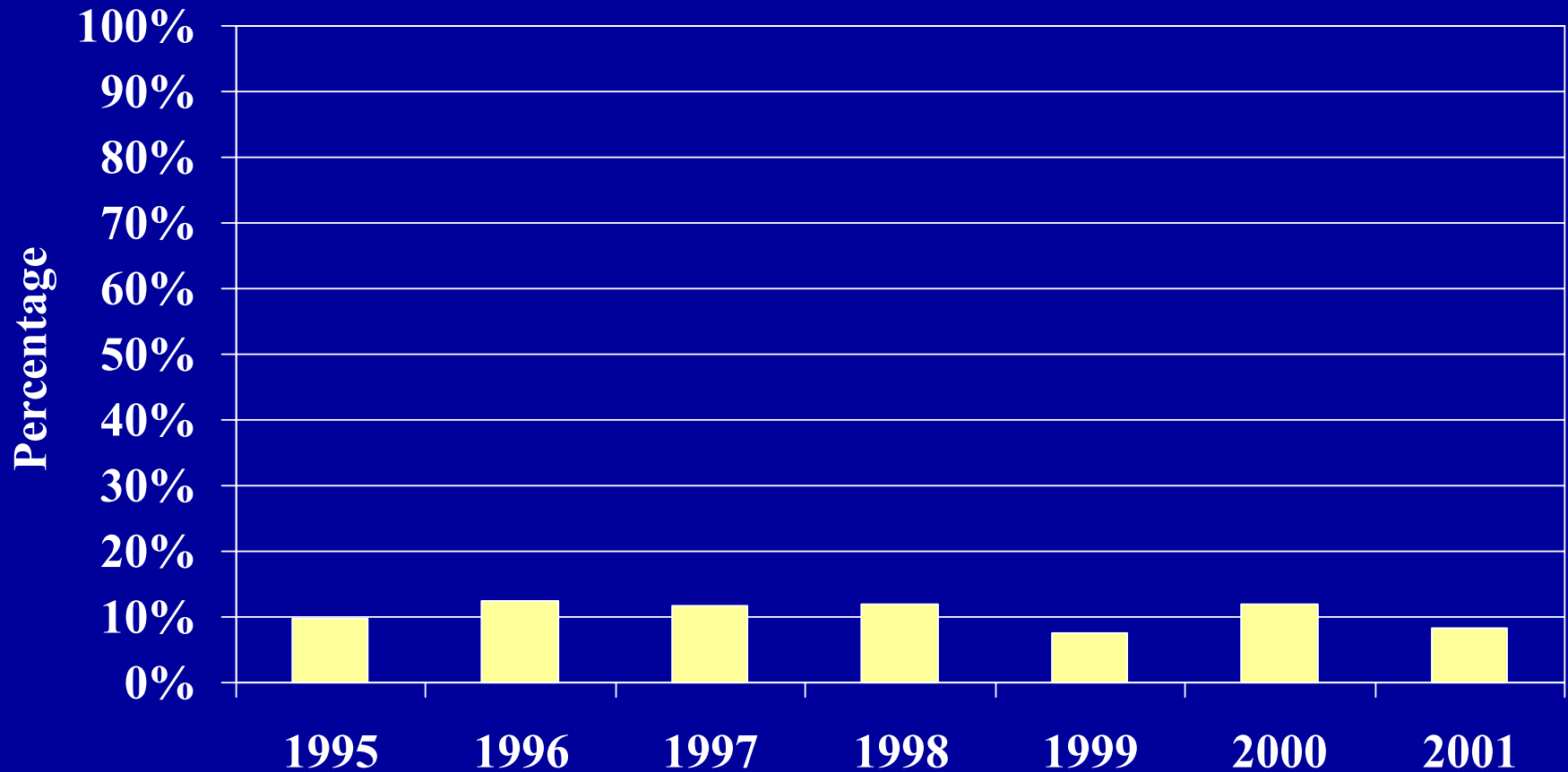
% of Major Pediatric Trauma Receiving Definitive Care at a Non-Pediatric Designated Service (ISS \geq 16, Admitted, Age $<$ 15)



Pediatric ICU Admissions (Designated Peds vs. Non-Peds)



% of Pediatric ICU Admissions Occurring at Non-Pediatric Designated Services

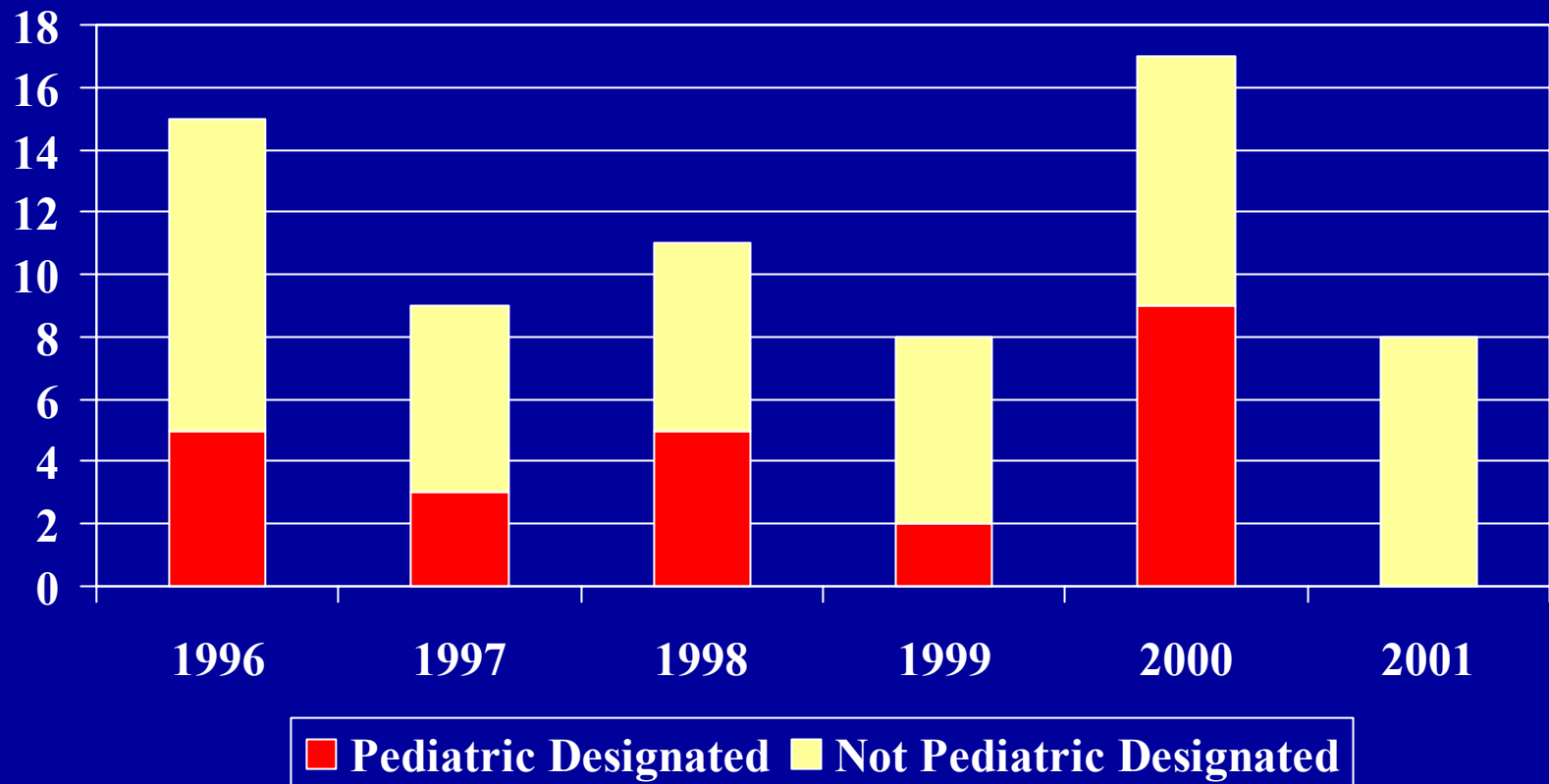


2001 Major Pediatric Trauma

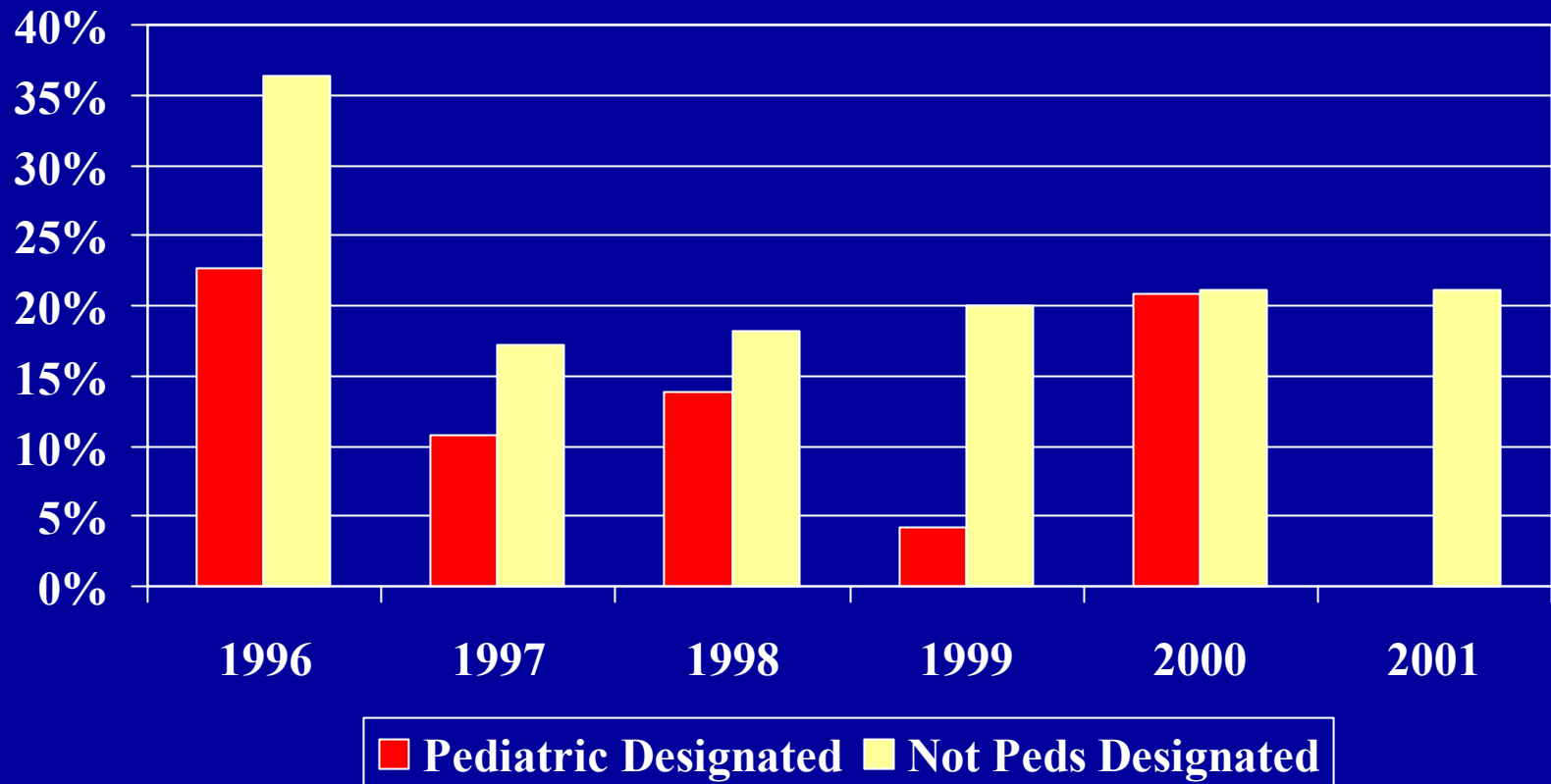
(ISS \geq 16, Admitted to Non-Peds Service, N=29)

- 12 patients with traumatic brain injuries, most commonly closed head injuries.
- 15 with spleen injuries
- 1 with multiple orthopedic injuries
- 1 with injury to the small intestine
- 28 discharged home, 1 transferred to a Designated Pediatric Service

Splenectomies in Children (Age<15)

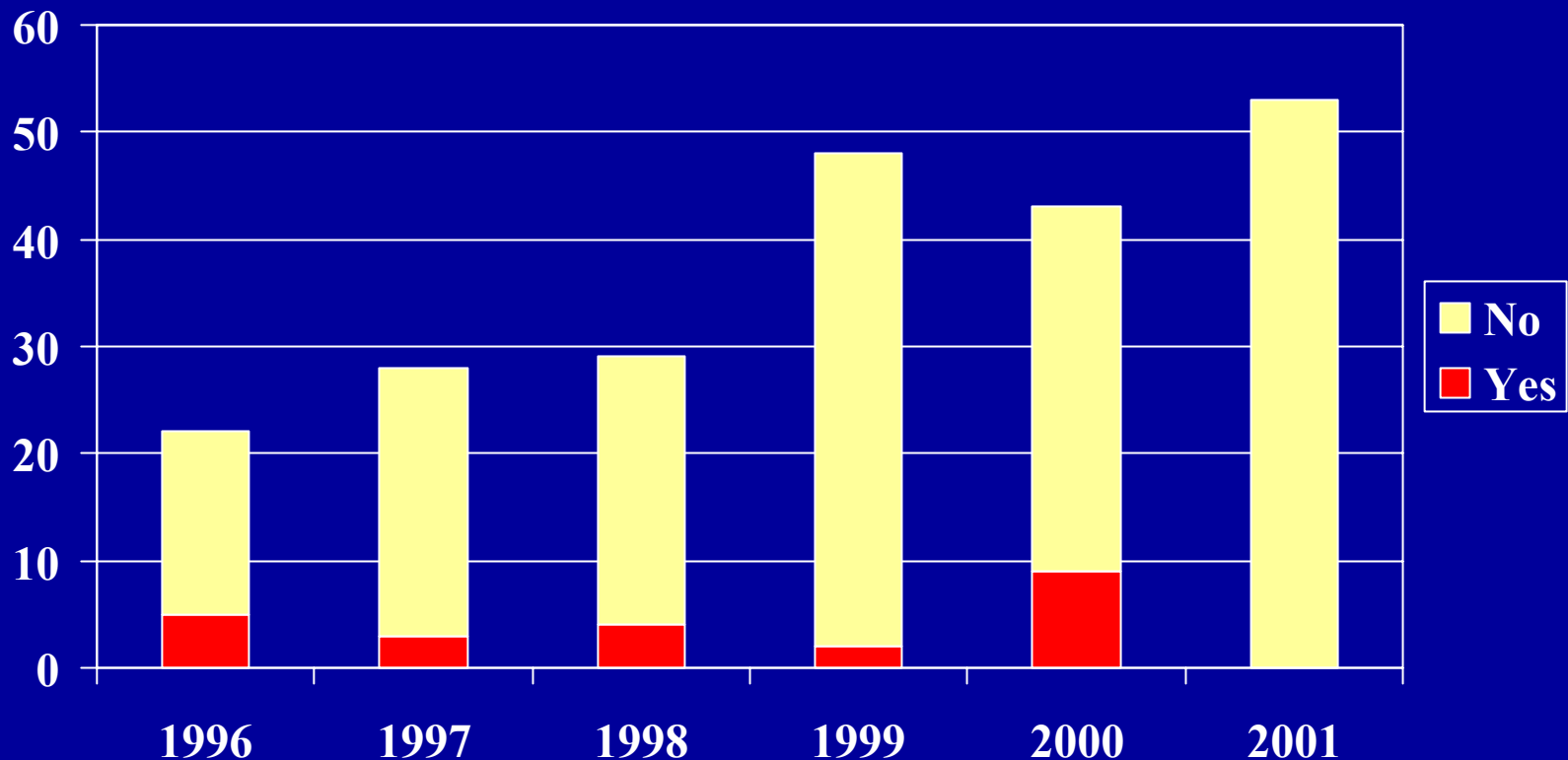


% of Admitted Patients with Spleen Injuries Resulting in Splenectomy



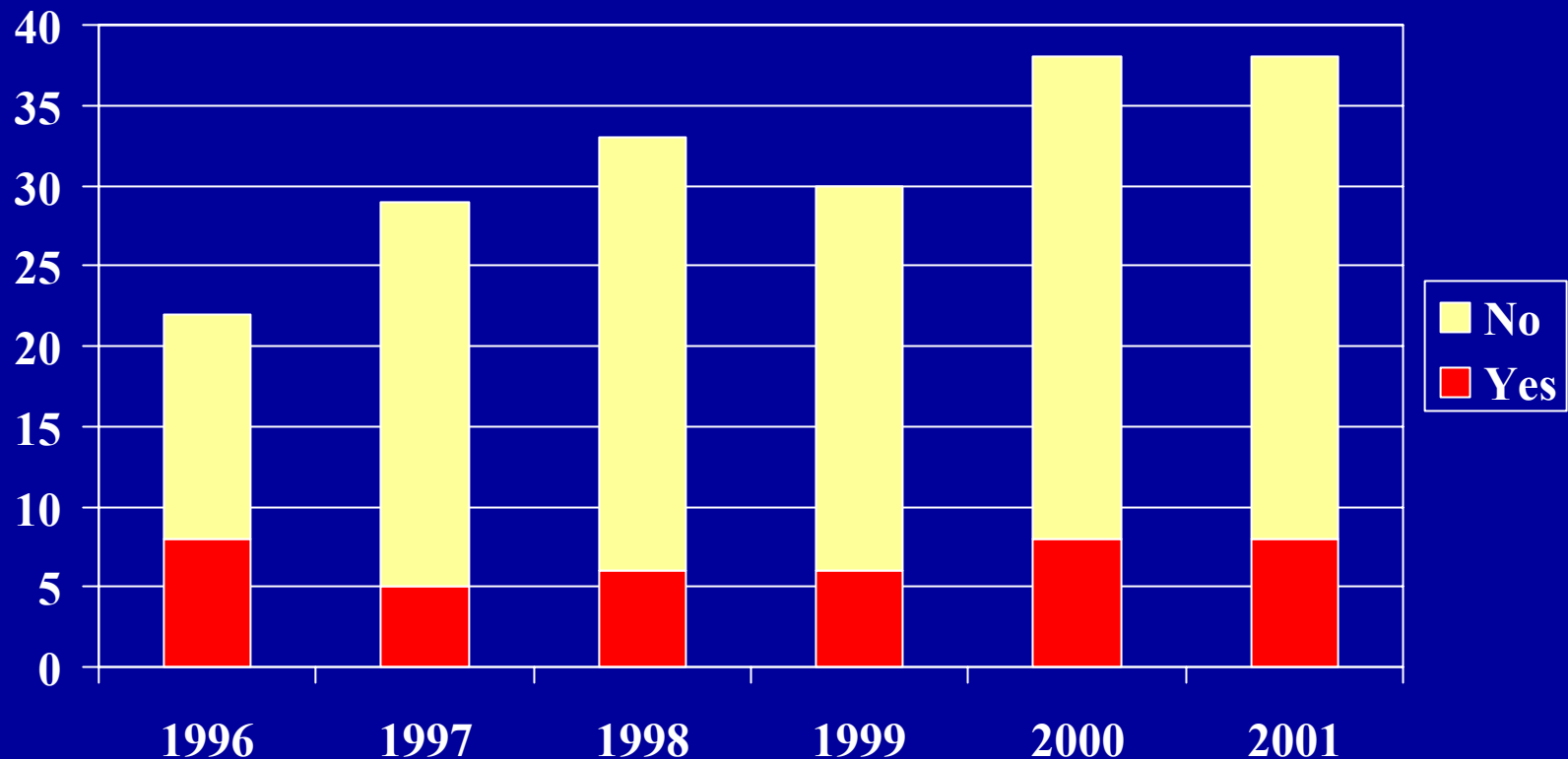
Splenectomies for Spleen Dx

(Pediatric Designated Services, Admitted Pts)



Splenectomies for Spleen Dx

(Non-Pediatric Designated Services,
Admitted Patients)



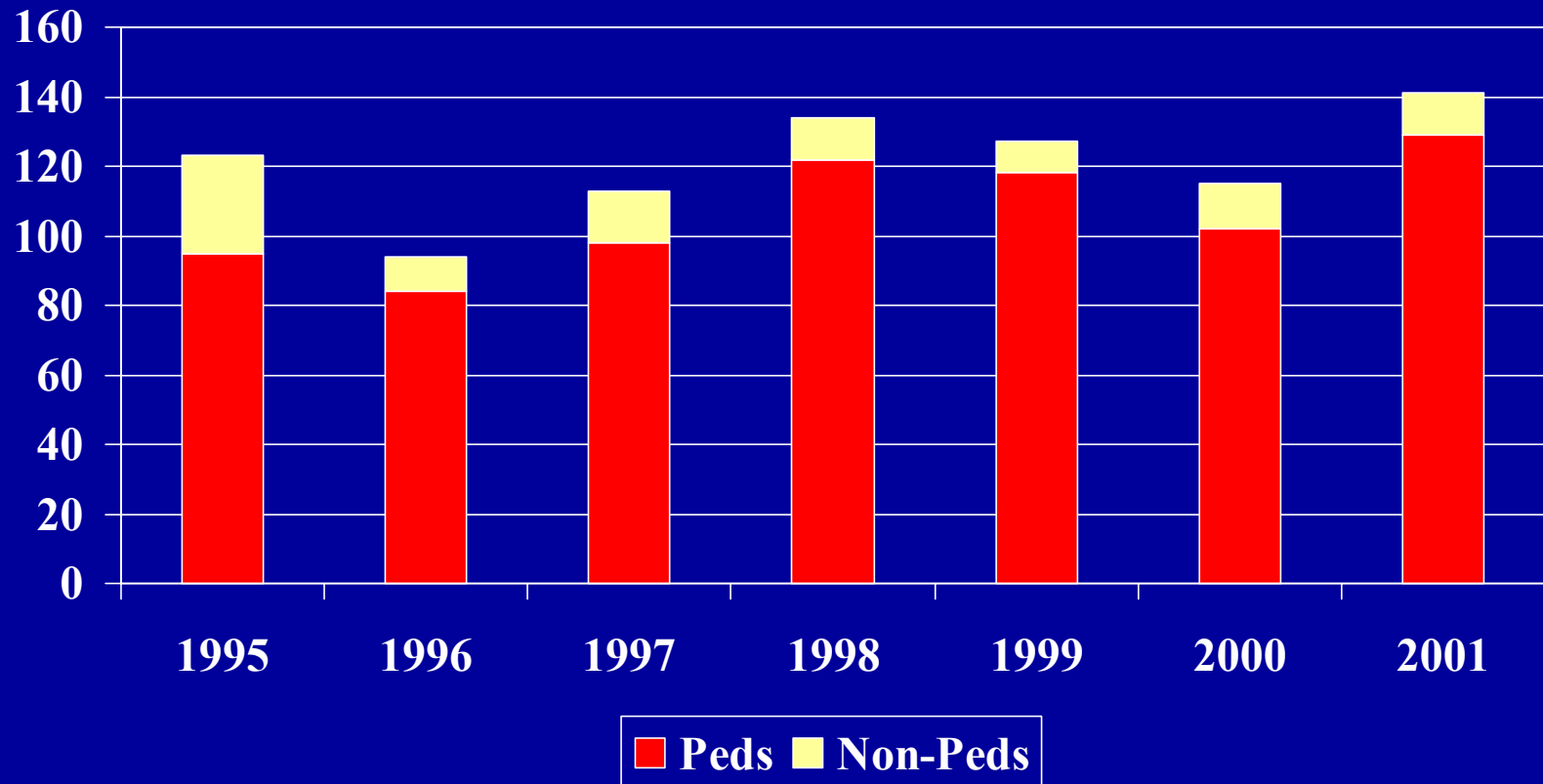
Splenectomies at Non-Pediatric Services – Year 2001

Received Blood in ED?	Systolic BP	Pulse Rate	Trauma Team Activation	ED LOS (minutes)	Hospital LOS (days)	Age (years)	Mechanism of Injury
No	134	66	None	75	4	14	Bicyclist
No	126	80	None	117	4	12	Animal being ridden
No	137	71	None	148	5	14	Fall (same level trip)
No	123	100	Unknown	132	5	14	MV Occup.
No	103	83	None	Unk	6	14	Bicyclist
No	129	79	None	180	5	13	Struck by/assault
No	122	81	Consult	215	4	13	Bicyclist
No	94	91	None	170	5	7	Bicyclist

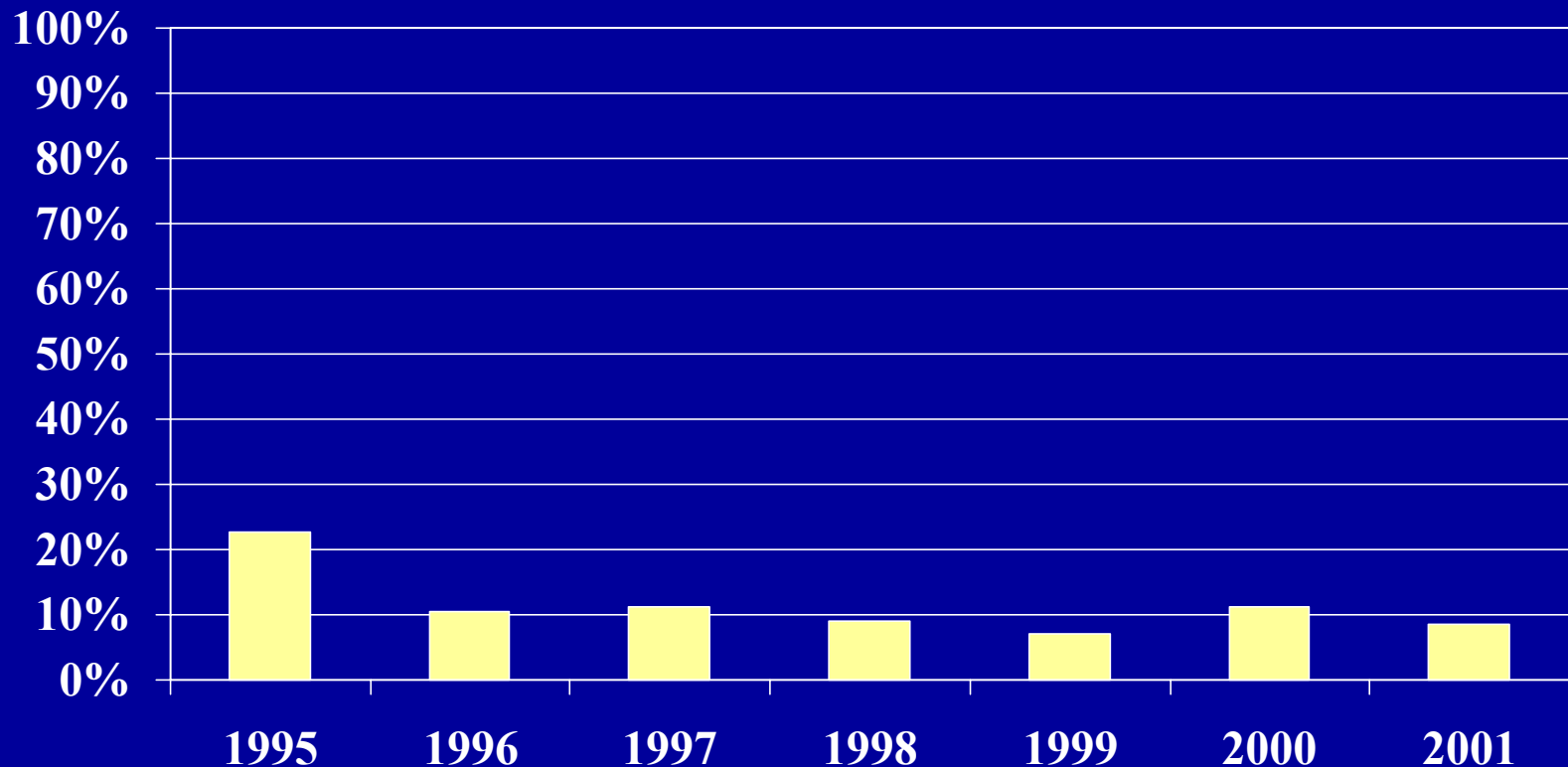
Splenectomies at Non-Pediatric Designated Services - 2001

- 8 splenectomies
- All occurred in hemodynamically stable children.
- All went from the ED to OR. None was observed in the ICU prior to surgery.
- 3 occurred at one hospital (level III).
- By level: 1 level II, 6 level III, 1 level IV

Traumatic Brain Injury (Admitted Patients with ISS \geq 16)



% of Major TBI Admissions Occurring at Non-Pediatric Designated Services (ISS \geq 16, DOH Criteria, Age $<$ 15)

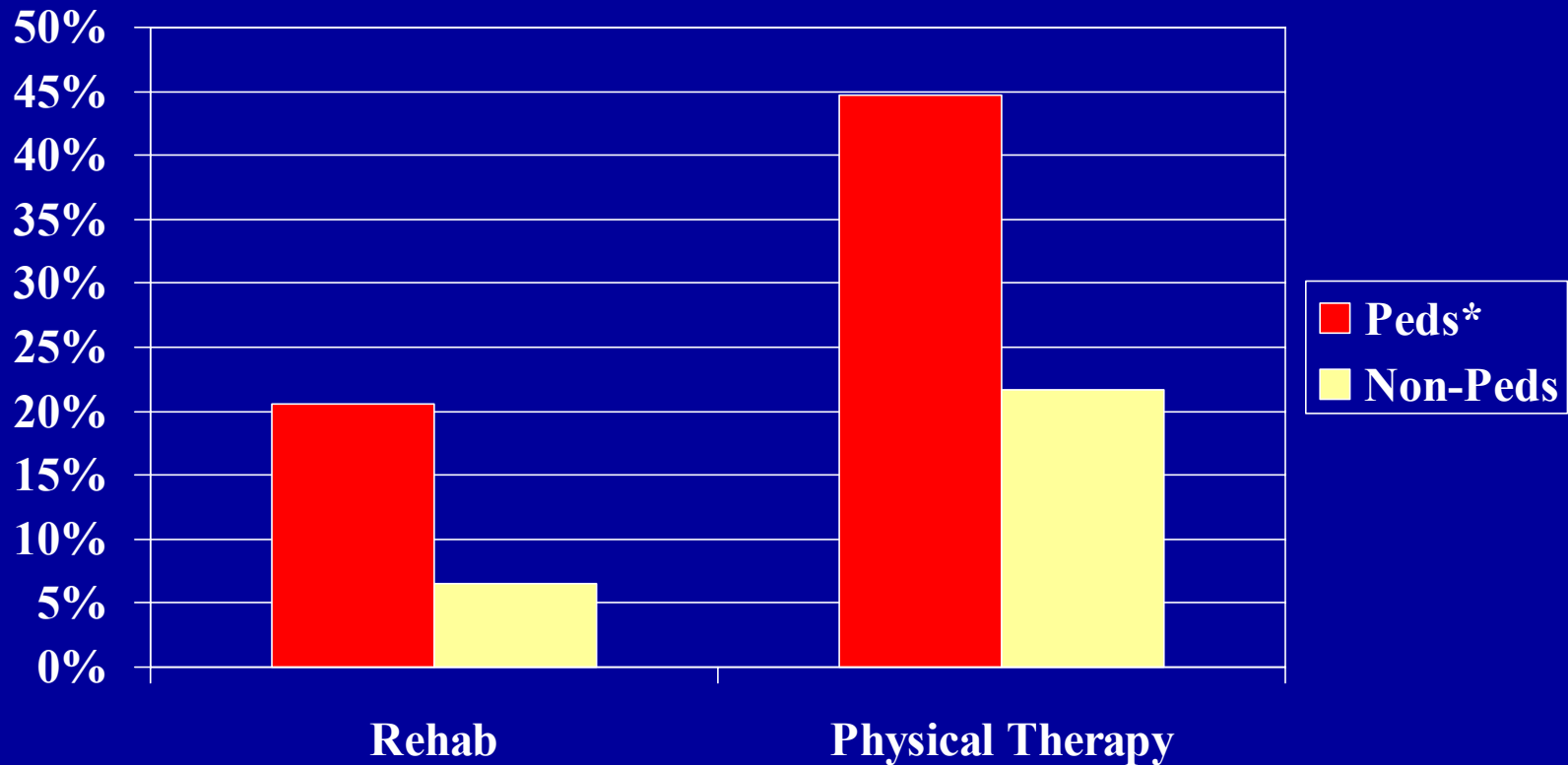


Major TBI Admitted at Non-Pediatric Services – Year 2001

ED GCS	ISS	Age	Trauma Team Activation	Surgery?	Hospital LOS (days)	ICU Stay?	Disch GCS	Mech .of Injury
15	17	10	None	No	1	Yes	15	Machinery
15	16	3	None	No	3	Yes	15	Fall
15	17	8	None	No	2	No	15	Fall
15	19	13	None	Yes/Ortho	2	No	15	MV Occup.
15	17	4	Modified	No	3	No	15	MV Ped
15	22	14	Consult	Yes/Ortho	3	No	Unk	MV Occup.
14	17	14	Unk	No	3	Yes	15	Motorcycle
14	16	<1	None	No	1	No	15	Fall
Unk	21	14	Unk	No	3	Yes	15	Bicycle
15	22	12	None	No	1	No	15	MV Ped
15	16	11	None	Yes/Neuro	2	Yes	15	Bicycle

Consults for Admitted TBI

(Age<15, ISS>=16, 1998-2001)



Pediatric Trauma Deaths

Non-Pediatric Services – Year 2001

- 13 deaths in non-pediatric services (12 ED deaths and 1 DOA)
- Half died within 1 hour of arrival.
- All died within 3.5 hours of arrival.
- All had GCS of 3 on arrival (6 intubated)
- 5 had full trauma response, 3 modified.
- 5 had no trauma team activation.

Pediatric Deaths – 2001

	Pediatric Trauma Service	Non-Pediatric Trauma Service
Deaths	31	13
Where? DOA	1	1
Died in ED	12	12
Died in OR	1	0
Died (Ward or ICU)	17	0
% Autopsied	58.1	38.5
Suitable for TRISS	45.2%	15.4%
Organ donation request	41.9%	38.5%

Pediatric Deaths – 2001 (continued)

	Pediatric Trauma Service N=31	Non-Pediatric Trauma Service N=13
Full Team Activation	67.7%	38.5%
Intubated at 1 st GCS	87.1%	46.2%
Transferred in from another acute care facility	25.8%	0%
Transported by Air from scene	30.4%	0%